Abstract of the Disclosure

Structure and methodology involving mountable and head-wearable frame structure which is positionally stabilized, during use, relative a human subject's head, and which carries a selection of positionally anchored data sensors, and stimuli deliverers, that are relevant to the diagnosis and treatment of vestibular disorders. Special configurations are provided for two types of stimulators, one for sound application and air-pressure modification, and the other for the introduction of fluids to the ear. Stabilization enables tight and accurate correlation of data which is quickly analyzable by a connected, properly algorithmed computer, which can also be used for feedback control in a designed "expert" system. The invention enables, among other things, practical and significant differentiation between physiological and pathological nystagmus.